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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,079	03/04/2002	Ratko Menjak	DP-306451/DE3-0262	6722

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EXAMINER

LUONG, VINH

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,079

Applicant(s)

MENJAK, RATKO

Examiner

Vinh T Luong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 4, 5, 7, 11-14, 17, 21, 22, 25-27 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8-10, 15, 16, 18-20, 23, 24 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Vinh T. Luong
Primary Examiner

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Exhibit*.

1. Applicant's election of the species of Figs. 1 and 6 in Paper No. 4 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse. MPEP § 818.03(a).

2. Claims 4, 5, 7, 11-14, 17, 21, 22, 25-27, and 29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 4.

3. The Amendment filed on October 9, 2003 has been entered.

4. The listing of references in the specification (e.g., page 1) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

6. The abstract of the disclosure is objected to because of the legal phraseology, such as, "said." Correction is required. See MPEP § 608.01(b).

7. The drawings are objected to because each part of the invention, such as, the electronic instruments and switches in claim 2 should be designated by a referential numeral or character. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

8. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed feature(s), such as, the electronic instruments and switches in claim 2 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

9. The disclosure is objected to because of the following informalities: each part of the invention, such as, the electronic instruments and switches in claim 2 should be designated by a referential numeral or character. Appropriate correction is required.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-3, 6, 8-10, 15, 16, 18-20, 23, 24, and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

No antecedent basis is seen for the terms, such as, "it" in line 2 of claim 1, "said steering shaft" in claims 8 and 9, and "said hand wheel actuator" in claim 15.

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1, 3, 6, 9, 10, 15, 18-20, 23, 24, and 28, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu (US Patent No. 4,825,972).

Regarding claim 1, Shimizu teaches a hand wheel actuator 140 comprising:

a housing 3a, 3 (Fig. 1A);

a first shaft 7a (id., line 6 et seq., column 3, Fig. 1B) having an upper end configured for attaching a hand wheel 121 (Fig. 8), said first shaft 7a being supported by said housing 3a, 3 via bearings 4b and 4c such that it is rotatable about its own axis;

a position sensor 7 for detecting an angular displacement of the first shaft 7a from a selected origin and producing a signal indicative of said angular displacement;

an electric motor 9 in operative communication with the first shaft 7a for providing force feedback to a driver; and

a steering post 2 maintained in a fixed position with respect to the housing 3a, 3 for maintaining a hub (unnumbered in Fig. 8, see Exhibit) in a fixed position centrally of said hand wheel 121 (id., line 50 et seq., column 2) said hub facing the driver when said hand wheel 121 is operated, said steering post 2 extending along an axis of rotation of said hand wheel 121 and through said first shaft 7a, said first shaft 7a being fixed to said hand wheel 121 and rotating therewith.

Regarding claim 3, said steering post 2 being attached and fixed directly to said housing 3a, 3.

Regarding claim 6, said first shaft 7a being supported by said steering post 2 via said bearings 4b and 4c which allow relative rotation between said steering post 2 and said first shaft 7a (Figs. 1A and 1B).

Regarding claim 9, Shimizu further teaches a return-to-center device 20 (neutral position restoring device, Fig. 5. Ibid., claims 1-11) operatively connected to said steering shaft, said return-to-center device applying a mechanical force to said steering shaft when said hand wheel is not in a centered position, said mechanical force biasing said hand wheel toward said centered position. Ibid., line 12 et seq., column 8.

Regarding claim 10, said first shaft 7a being in mechanical communication with a steering shaft 2, said position sensor 7 directly sensing a position of the steering shaft 2.

Regarding claim 15, said first shaft 7a has a first pulley 7b and said steering shaft 2 has a second pulley 2b, said hand wheel actuator further comprising a belt 7c that engages said first pulley 7b and said second pulley 2b thereby placing said steering shaft and said first shaft in operative communication with each other (Fig. 1B).

Regarding claim 18, Shimizu teaches a mechanical return-to-center and positive stop device (i.e., means for restoring steered wheel from a current position to a neutral position. See claims 1-11) that positively limits rotation of said hand wheel to a selected maximum angle or rotation in either direction and provides a mechanical force to said steering shaft when said hand wheel is not in a centered position, said mechanical force biasing said hand wheel toward said centered position.

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Regarding claim 19, said mechanical return-to-center and positive stop device acts directly on said steering shaft 2. See claims 1-11.

Regarding claim 20, said mechanical return-to-center and positive stop device comprises a ball screw 8c and spring mechanism 8g. Ibid., line 22 et seq., column 3, and Fig. 1A.

Regarding claim 23, said first shaft 7a being in mechanical communication with a steering shaft 2, said position sensor 7 directly sensing a position of the steering shaft 2.

Regarding claims 24 and 28, see regarding claims 15 and 18 above.

14. Claims 2, 8, and 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

15. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ozsoylu et al.'115 (pulley 62), Duval et al. (pulley 51), Bugosh (motor 60), Magnus et al. (claims 1-45), Heitzer (position sensor), Shimizu et al.'276 (Fig. 2), Shimizu et al.'918 (Figs. 1-6), Menjak et al. (claims 1-38), Shimizu'463 (Fig. 1), and Yost (Fig. 1).

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T Luong whose telephone number is 703-308-3221. The examiner can normally be reached on Tuesday - Friday.

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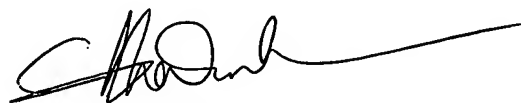
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Luong

December 10, 2003

A handwritten signature in black ink, appearing to read 'Vinh T. Luong', with a long horizontal line extending to the right.

Vinh T. Luong
Primary Examiner